

Red and Blue text - City review comments  
Purple text - HDR's response

# 30" FORCE MAIN RELOCATION UNDER I-20

PRELIMINARY 30% DESIGN  
JUNE 2024

How will construction crews access the area under the bridge for pipeline relocation? Include the construction entrances on the plans. this plan is currently being developed

What is the status of the inquiry into the Corps permit? a new permit application is being prepared for areas outside DOT R/W

No other existing utilities are shown. Please include. all known utilities are shown

If there are any existing ARVs, they must be included on the plans. no, none within limits of project

A tie-in plan will be required and include instructions on the plan sheet. added

If blasting is needed, a blasting plan will be required and include instructions on the plan sheet. no blasting is anticipated based on all geotech borings

A spill prevention plan will be required to include instructions on the plan sheet. this plan is currently being developed

A shut-down and de-watering plan will be required and include instructions on the plan sheet. bypass plan added, includes shutdown and dewatering of existing force main

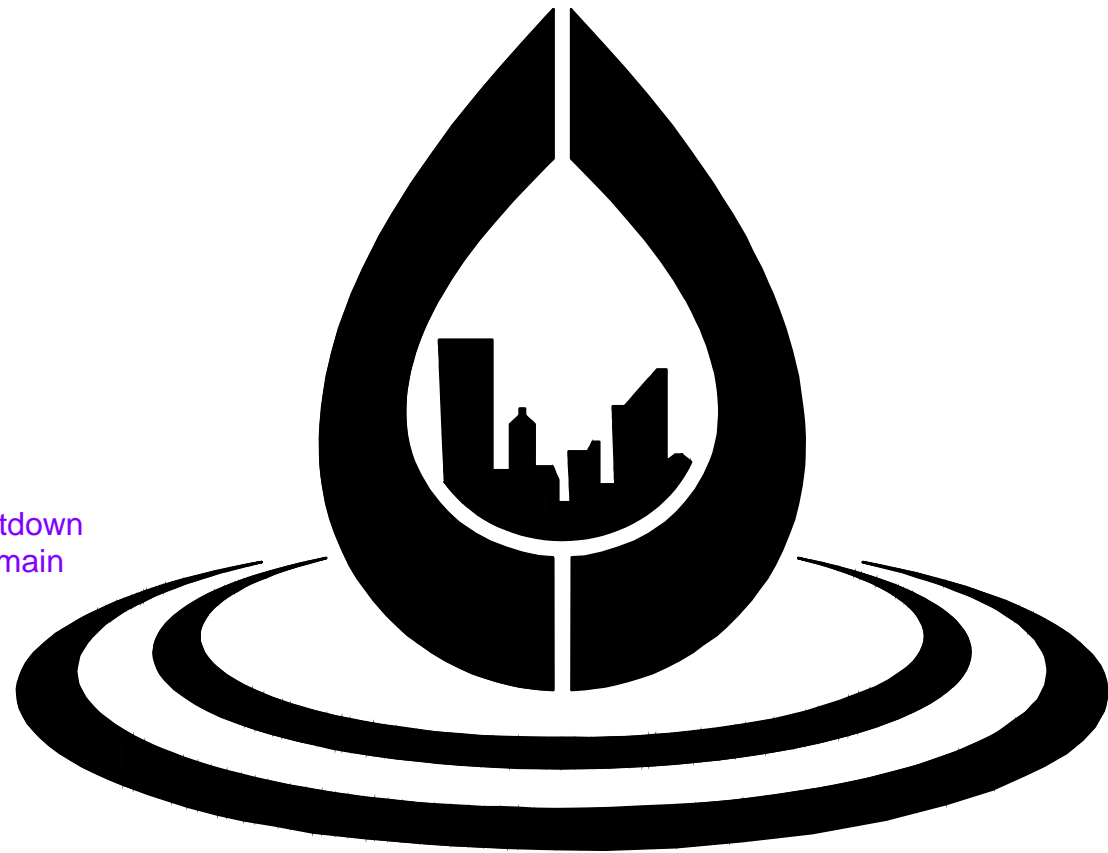
A bypass plan will be required to include instructions on the plan sheet. added

Approval of shut-down/storage plans must be requested in writing not less than 30-days in advance of the proposed date. This date must then be confirmed at 15-days, 10-days, and 5-days prior to the work. This requirement must be included on the plan sheet. note has been added

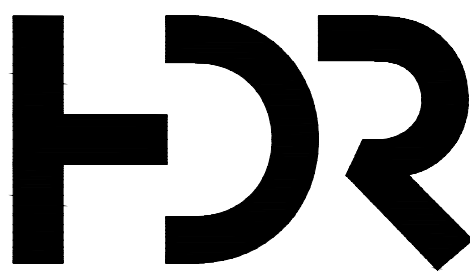
What is the status of the geotech field work/processed results? we are checking status

Force main markers must be shown to be placed along the newly relocated force main. added

Please add to the plans the property information (Owner, address and TMS) to the properties shown. added



# Columbia Water



HDR Engineering, Inc.  
of the Carolinas

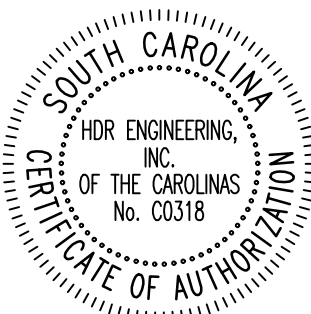
1201 Main St., Suite 800  
Columbia, SC 29201

# CITY OF COLUMBIA

Include overall map  
showing the location  
of the construction added

This 30% submittal has been  
reviewed by the City of Columbia.  
Comments have been added, and  
it is being returned to HDR. Please  
proceed and complete 60% plans.

07/10/2024



CITY MANAGER  
TERESA B. WILSON

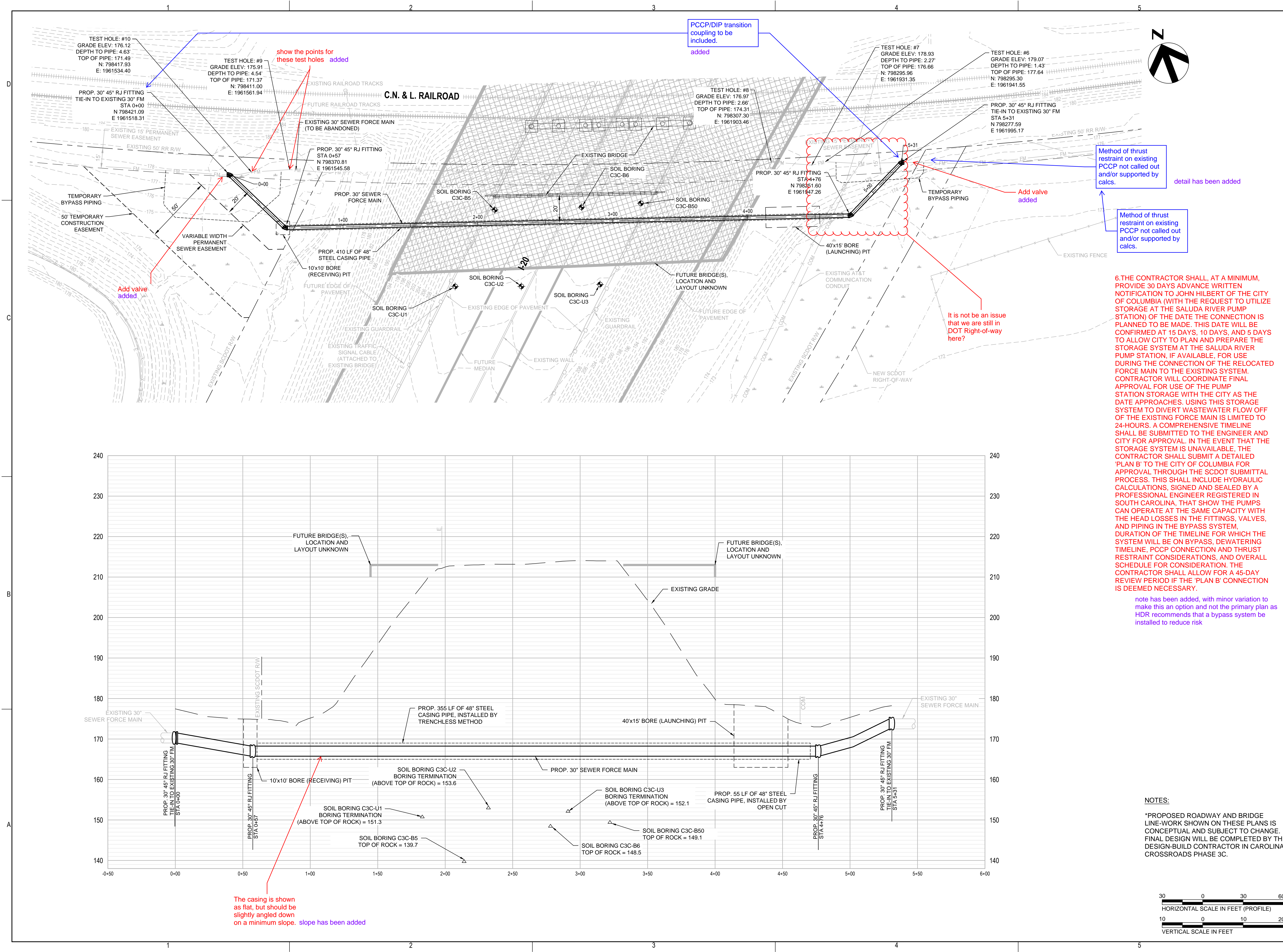
DIRECTOR OF ENGINEERING  
DANA R. HIGGINS, P.E.

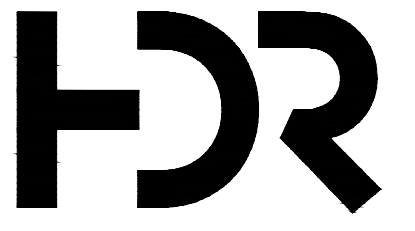
CITY COUNCIL  
EDWARD H. McDOWELL, JR.  
WILL BRENNAN  
DR. ADITI BUSSELLS  
TINA A. HERBERT  
PETER M. BROWN  
TYLER D. BAILEY

MAYOR  
DANIEL J. RICKENMANN

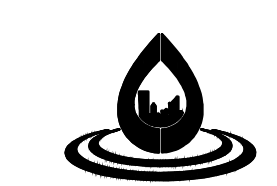
SHEET NO:  
00G-100







OWNER



Columbia Water

DEPARTMENT OF ENGINEERING  
P.O. BOX 147  
COLUMBIA SOUTH CAROLINA 29217

PROJECT

30" FORCE MAIN  
RELOCATION  
UNDER I-20

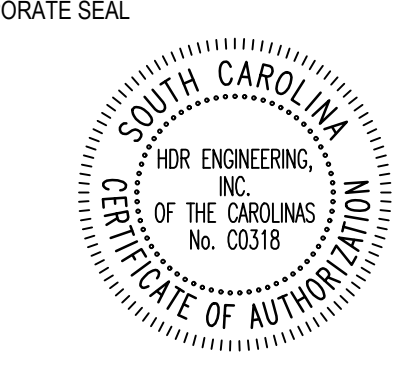
REVISION

MARK	DATE	DESCRIPTION
A	06/2024	30% DESIGN

HDR DRAWING INFORMATION

HDR PROJECT NUMBER	10207730
PROJECT MANAGER	
CIVIL ENGINEER	MATTHEW SHULTZ, PE
DRAWN BY	JIM KROOSWYK

CORPORATE SEAL



ENGINEER SEAL

PRELIMINARY

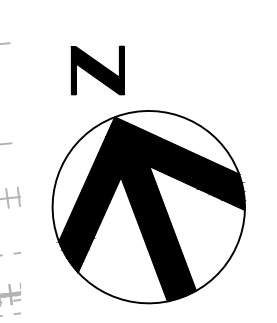
SCALE H: 1" = 30'  
V: 1" = 10'

SHEET NAME

PLAN AND PROFILE OF  
NEW 30" FORCE MAIN  
STA 0+00 - STA 5+31

SHEET NUMBER

01C-100  
SHEET 2 OF 4



Method of thrust restraint on existing PCCP not called out and/or supported by calcs.

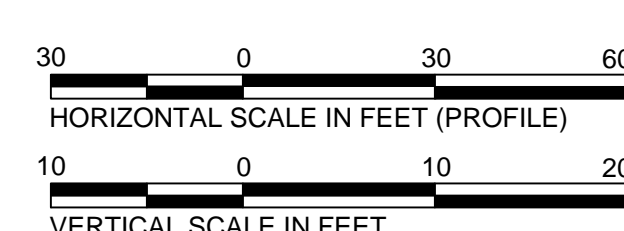
Method of thrust restraint on existing PCCP not called out and/or supported by calcs.

6.THE CONTRACTOR SHALL, AT A MINIMUM, PROVIDE 30 DAYS ADVANCE WRITTEN NOTIFICATION TO JOHN HILBERT OF THE CITY OF COLUMBIA (WITH THE REQUEST TO UTILIZE STORAGE AT THE SALUDA RIVER PUMP STATION) OF THE DATE THE CONNECTION IS PLANNED TO BE MADE. THIS DATE WILL BE CONFIRMED AT 15 DAYS, 10 DAYS, AND 5 DAYS TO ALLOW CITY TO PLAN AND PREPARE THE STORAGE SYSTEM AT THE SALUDA RIVER PUMP STATION, IF AVAILABLE, FOR USE DURING THE CONNECTION OF THE RELOCATED FORCE MAIN TO THE EXISTING SYSTEM. CONTRACTOR WILL COORDINATE FINAL APPROVAL FOR USE OF THE PUMP STATION STORAGE WITH THE CITY AS THE DATE APPROACHES. USING THIS STORAGE SYSTEM TO DIVERT WASTEWATER FLOW OFF OF THE EXISTING FORCE MAIN IS LIMITED TO 24-HOURS. A COMPREHENSIVE TIMELINE SHALL BE SUBMITTED TO THE ENGINEER AND CITY FOR APPROVAL. IN THE EVENT THAT THE STORAGE SYSTEM IS UNAVAILABLE, THE CONTRACTOR SHALL SUBMIT A DETAILED 'PLAN B' TO THE CITY OF COLUMBIA FOR APPROVAL THROUGH THE SCDOT SUBMITTAL PROCESS. THIS SHALL INCLUDE HYDRAULIC CALCULATIONS, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN SOUTH CAROLINA, THAT SHOW THE PUMPS CAN OPERATE AT THE SAME CAPACITY WITH THE HEAD LOSSES IN THE FITTINGS, VALVES, AND PIPING IN THE BYPASS SYSTEM, DURATION OF THE TIMELINE FOR WHICH THE SYSTEM WILL BE ON BYPASS, DEWATERING TIMELINE, PCCP CONNECTION AND THRUST RESTRAINT CONSIDERATIONS, AND OVERALL SCHEDULE FOR CONSIDERATION. THE CONTRACTOR SHALL ALLOW FOR A 45-DAY REVIEW PERIOD IF THE 'PLAN B' CONNECTION IS DEEMED NECESSARY.

note has been added, with minor variation to make this an option and not the primary plan as HDR recommends that a bypass system be installed to reduce risk

NOTES:

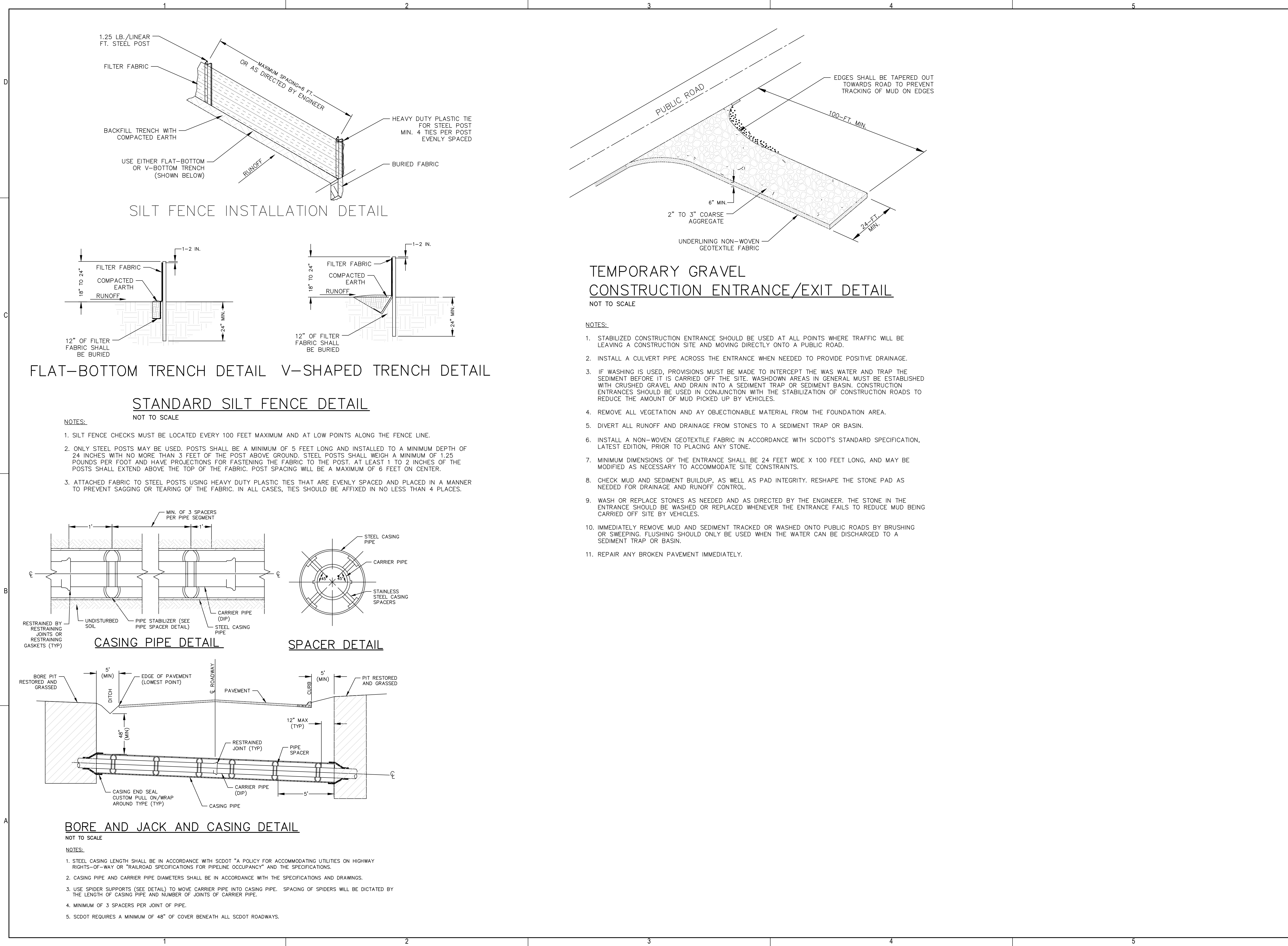
\*PROPOSED ROADWAY AND BRIDGE LINE-WORK SHOWN ON THESE PLANS IS CONCEPTUAL AND SUBJECT TO CHANGE. FINAL DESIGN WILL BE COMPLETED BY THE DESIGN-BUILD CONTRACTOR IN CAROLINA CROSSROADS PHASE 3C.











OWNER

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REVISION

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MARK	DATE	DESCRIPTION

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CIVIL ENGINEER	MATTHEW SHULTZ, PE
DRAWN BY	JIM KROOSWYK

CORPORATE SEAL

ENGINEER SEAL

**PRELIMINARY**

SCALE NTS

SHEET NAME

**DETAILS 2**

SHEET NUMBER

**02C-101**  
**SHEET 4 OF 4**